

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of)

)
Replacement of Part 90 by Part 88 to)
Revise the Private Land Mobile Radio)
Services and Modify the Policies)
Governing Them)

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY
PR Docket No. 92-235

COMMENTS OF
MCI TELECOMMUNICATIONS CORPORATION

MCI Telecommunications Corporation (MCI), by its undersigned attorneys, hereby submits its comments in response to the Commission's Notice of Proposed Rule Making (Notice) in the above-captioned proceeding. In the Notice, the Commission proposes to increase channel capacity in the private land mobile radio (PLMR) bands below 512 MHz, promote more efficient use of these channels, and simplify the policies governing the use of these bands. A new set of rules that are flexible and simple with regard to the technical and operational characteristics and the mechanisms for licensing users is also proposed.

MCI currently operates over 700 point-to-point common carrier microwave paths spanning over 16,000 miles and over 17,000 miles of fiber optic systems in the United States. Over 600 base/repeater stations in the 450-470 MHz PLMR band are operating along with several thousand vehicle-mounted and handheld mobile radios. These Telephone Maintenance Radio Service facilities are used to support the maintenance and ongoing expansion of the MCI network. The

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following comments are directed only to those proposals in the Notice that affect the 450-470 MHz PLMR band. MCI does not currently have an interest in the other PLMR bands, primarily due to our large installed base of 450-470 MHz facilities.

The proposals to increase the number of channels by a factor of four and to increase the channel availability by combining many of the user company types are both excellent ideas. The initial expense of meeting the new 10 kHz emission requirement will hopefully be offset by reduced congestion as users begin migrating to the newly available channels. The further reduction of emissions to 5 kHz will require complete replacement of facilities. The 10 to 18 year period for making this change would appear to be adequate to allow for amortization of the existing equipment.

The exclusive use overlay ("EUO") provisions seem complex and will directly conflict with the shared-use nature of this service. With the large increase in channel availability, who would want to share with someone that has over 50 mobiles using the channel? However, if these 50 mobiles use the channel an average of one minute each per day, this channel might be the best one for sharing. Or if the 50 mobiles will operate normal business hours only and the new user will be nighttime only, this might be an ideal channel for sharing. Rather than setting the criteria for EUO based on number of mobiles, the average and peak number of minutes per day and the daily pattern of use would seem more appropriate.

The new technical rules in the Notice provide for an absolute maximum ERP of 300 watts that will fall to 5 watts for heights over 600 feet above average terrain. These limits are far less than powers typically used today and will require new multi-station systems to use more than twice as many base/repeater stations. The Commission's example of a 250 watt base station for a three square mile town identifies an isolated case of an excessive use of power, but there are applications for which even higher powers are reasonable. In a remote area where there is no frequency congestion and never will be any congestion, a station covering a 50 or 100 mile radius would be quite reasonable and might be the only cost-effective way of providing any service at all. The restrictive new power limits do not take into account necessary coverage areas or frequency congestion and are, therefore, not appropriate.

The new ERP limits likewise fail to take into account the shape of the coverage area. Along a microwave or fiber optic route, a directional antenna might be used to produce a somewhat rectangular coverage area 10 miles wide and 50 miles long. The ERP might be 500 watts for the long axis, but only 50 watts for the narrow cross distance. The coverage area of such a directional system would be less than that covered by an omnidirectional antenna with a 13 mile radius. The new power limits do not take into account this type of application to efficiently cover an area.

The MCI network covers some areas so thoroughly that continuous PLMR coverage is needed over a large area. For example, the MCI microwave and fiber optic systems in Ohio require coverage of

almost the entire state. MCI currently has 20 base stations in Ohio on 9 different frequency pairs. The new ERP limits would require about 90 additional stations to provide for the same coverage. In areas where heavy tree coverage provides significant signal attenuation, an even greater number of new stations might be required.

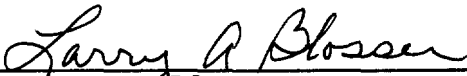
The lack of adequate grandfathering provisions in the new rules will require existing systems to meet the new ERP limits by January 1, 1996. This will impose an unreasonable burden and cause multi-station operators generally, and large users like MCI in particular, to incur enormous expense with no corresponding benefit. The huge installed base of MCI PLMR facilities makes abandonment of the current facilities and migration to alternative systems of communications (to the extent such systems may exist) impracticable within such a short timeframe.

MCI has examined the availability of alternatives to the PLMR service for its construction, maintenance, and restoration

The PLMR service is extremely valuable to MCI and we heartily endorse the Commission's action to expand the number of channel assignments and provide for greater channel availability. The new technical and operating standards, however, are far too restrictive and will lead to more expensive systems and fewer opportunities to develop innovative techniques.

Respectfully submitted,
MCI TELECOMMUNICATIONS CORPORATION

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Dated: May 28, 1993

CERTIFICATE OF SERVICE

I, Vernell V. Garey do hereby certify that on this 28th day of May, 1993, copies of the foregoing "**Comments**" in File No. PR-92-235 were served upon the parties below by first-class, U.S. mail, postage prepaid, unless otherwise indicated:

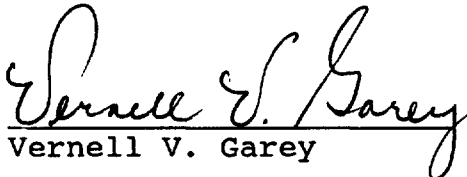
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